UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to:
OSB2000-0132

August 11, 2000

Mr. Bob Graham
Natural Resources Conservation Service
Attn: Mr. Steve Fedje
101 SW Main Street
Portland, Oregon 97204

Re: Biological Opinion on METRO Parks and Recreation Wetlands Restoration Project near Scappose, Oregon

Dear Mr. Graham:

Enclosed is the National Marine Fisheries Service's (NMFS) biological opinion (Opinion) on the METRO Parks and Recreation Wetlands Restoration Project as described in the Natural Resources Conservation Service's (NRCS) Biological Assessment dated September 13, 1999. This Opinion addresses Lower Columbia River chinook salmon and constitutes formal consultation for this listed species. The NMFS has determined that the subject action, as proposed, is not likely to jeopardize the continued existence of this listed species.

This Opinion also serves as consultation on proposed chinook salmon Essential Fish Habitat (EFH) under the Magnuson-Stevens Fishery Conservation and Management Act as amended (16 U.S.C. 1801 et seq.) and its implementing regulations at 50 CFR Part 600.

Questions regarding this letter should be directed to Ben Meyer of my staff in the Oregon State Branch Office at (503) 230-5425.

Sincerely,

Michael R Course

for William Stelle, Jr.
Regional Administrator

Enclosure

Endangered Species Act - Section 7
Consultation

Biological Opinion

METRO Parks and Recreation
Wetlands Restoration Project

Agency: Natural Resources Conservation Service

Consultation Conducted By: National Marine Fisheries Service,
Northwest Region

Date Issued: August 11, 2000

Refer to: OSB2000-0132

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I. BACKGROUND

On June 12, 2000, the National Marine Fisheries Service (NMFS) received a request from the Natural Resources Conservation Service (NRCS) for Endangered Species Act (ESA) section 7 formal consultation for funding of a proposed Ducks Unlimited and Oregon Department of Fish and Wildlife wetlands restoration project on property owned by METRO Parks and Recreation along Multnomah Channel near Scappose, Multnomah County, Oregon. The existing wetlands had been choked with Reed's canary grass (introduced exotic vegetation) which provides poor habitat for over-wintering juveniles as compared to natural vegetation. The inundation of the area by floods in 1996 and 1997 suppressed the grass and allowed for native vegetation to become re-established. The intent of the proposed project is to control Reed's canary grass to retain the native vegetation that is now on site, which would be of larger benefit to juvenile salmon. In the June 12, 2000, letter, and attached Biological Assessment (BA), the NRCS determined that the Lower Columbia River chinook salmon (*Oncorhynchus tshawytscha*), listed as threatened under the ESA, may occur within the project area.

The objective of this biological opinion (Opinion) is to determine whether the action to maintain emergent vegetation in this wetland is likely to jeopardize the continued existence of Lower Columbia River chinook salmon or destroy, or adversely modify proposed critical habitat.

II. PROPOSED ACTION

The proposed action involves placement of two water control structures at the mouth of two tidal creeks that drain the 390 acre parcel to maintain water levels to control Reed's canary grass in the seasonally-flooded wetlands. The structures would each consist of a dike, a culvert and a juvenile bypass facility. The management plan would maintain the water level through the winter with a small culvert to allow juvenile salmon egress from flooded portions of the area.

As a conservation measure, the applicant proposes to monitor the facility to measure the success of the facility's design in passing juveniles and limiting stranding rates. Natural stranding rates in this area are unknown.

III. BIOLOGICAL INFORMATION AND CRITICAL HABITAT

Lower Columbia River chinook salmon were listed as threatened under the ESA on March 24, 1999 (64 FR 14308). Critical habitat was designated on February 16, 2000 (65 FR 7764).

The ODFW conducted studies of nearby Ruby Lake during January and April of 1999 and collected juvenile Lower Columbia River chinook salmon and/or Upper Willamette River chinook salmon in several seine net hauls. These fish probably entered the lake during high water events and may have eventually emigrated from the lake. Based on this information, the NMFS expects that rearing juvenile Lower Columbia River chinook salmon could be present in the area after construction is completed.

The NMFS does not expect any juveniles to be present in the area during construction of the facility. The proposed action would occur within designated critical habitat.

Essential habitat features of juvenile rearing areas are: (1) Substrate; (2) water quality; (3) water quantity; (4) water temperature; (5) water velocity; (6) cover/shelter; (7) food (juvenile only); (8) riparian vegetation; (9) space; and (10) safe passage conditions (50 CFR 226). The essential features this proposed project may affect are: 1) Potential increases in food production (through better habitat conditions); and, 2) safe passage conditions (as a result of the water control structure potentially affecting migration).

References for further background on listing status, biological information and critical habitat elements can be found in Federal Register 64:14308-14328, Myers *et al.*1998; Healey 1991; ODFW and WDFW 1998, and Federal Register 63:5740.

IV. EVALUATING PROPOSED ACTIONS

The standards for determining jeopardy are set forth in Section 7(a)(2) of the ESA as defined by 50 CFR 402 (the consultation regulations). NMFS must determine whether the action is likely to jeopardize the listed species and/or whether the action is likely to destroy or adversely modify critical habitat. This analysis involves the initial steps of: (1) Defining the biological requirements of the listed species; and (2) evaluating the relevance of the environmental baseline to the species' current status.

Subsequently, NMFS evaluates whether the action is likely to jeopardize the listed species by determining if the species can be expected to survive with an adequate potential for recovery. In making this determination, NMFS must consider the estimated level of mortality attributable to: (1) Collective effects of the proposed or continuing action; (2) the environmental baseline; and (3) any cumulative effects. This evaluation must take into account measures for survival and recovery specific to the listed species' life stages that occur beyond the action area. If NMFS finds that the action is likely to jeopardize the listed species, NMFS must identify reasonable and prudent alternatives for the action.

NMFS also evaluates whether the action, directly or indirectly, is likely to destroy or adversely modify the listed species' critical habitat. The NMFS must determine whether habitat modifications appreciably diminish the value of critical habitat for both survival and recovery of the listed species. The NMFS identifies those effects of the action that impair the function of any essential feature of critical habitat. The NMFS then considers whether such impairment appreciably diminishes the habitat's value for the species' survival and recovery. If NMFS concludes that the action will adversely modify critical habitat, it must identify any reasonable and prudent alternatives available.

For the proposed action, NMFS' jeopardy analysis considers direct or indirect mortality of fish attributable to the action. NMFS' critical habitat analysis considers the extent to which the proposed

action impairs the function of essential elements necessary for migration, spawning, and rearing of the listed species under the existing environmental baseline.

A. Biological Requirements

The first step in the methods NMFS uses for applying the ESA section 7(a)(2) to listed salmon is to define the species' biological requirements that are most relevant to each consultation. NMFS also considers the current status of the listed species taking into account population size, trends, distribution and genetic diversity. To assess the current status of the listed species, NMFS starts with the determinations made in its decision to list the species for ESA protection and also considers new data available that is relevant to the determination.

The relevant biological requirements are those necessary for Lower Columbia River chinook salmon to survive and recover to a naturally reproducing population level at which protection under the ESA would become unnecessary. Adequate population levels must safeguard the genetic diversity of the listed stock, enhance its capacity to adapt to various environmental conditions, and allow it to become self-sustaining in the natural environment.

For this consultation, the biological requirements are improved habitat characteristics that function to support successful migration, rearing habitat and over-wintering refugia. Salmon survival in the wild depends upon the proper functioning of certain ecosystem processes, including habitat formation and maintenance. Restoring functional habitats depends largely on allowing natural processes to increase their ecological function, while at the same time removing adverse impacts of current practices. In conducting analyses of habitat-altering actions, NMFS usually defines the biological requirements in terms of a concept called Properly Functioning Condition and utilizes a "habitat approach" to its analysis. The current status of the Lower Columbia River chinook salmon, based upon their risk of extinction, has not significantly improved since the species were listed. The NMFS is not aware of any new data that would indicate otherwise.

B. Environmental Baseline

The biological requirements of Lower Columbia River chinook salmon are currently not being met under the environmental baseline. Their status is such that there must be a significant improvement in the environmental conditions they experience over those currently available under the environmental baseline. Any further degradation of these conditions would have a significant impact due to the amount of risk they presently face under the environmental baseline.

The action area is the area that is directly and indirectly affected by the proposed action. The action area is defined by NMFS regulations (50 CFR 402) as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." The action area is the 390 acres of the site, along with the access channel to Multnomah Channel, which in turn drains into the Willamette River. The area serves as off-channel refugia and over-wintering habitat for Lower Columbia River chinook salmon.

The direct effects occur at the project site and may extend upstream or downstream, based on the potential for impairing fish passage, hydraulics, sediment and pollutant discharge, and the extent of riparian habitat modifications. Indirect effects may occur throughout the watershed where actions described in this Opinion lead to additional activities or affect ecological functions contributing to stream degradation. Other areas of the Multnomah Channel are not expected to be impacted by the proposed action.

V. ANALYSIS OF EFFECTS

A. Effects of Proposed Actions

The NMFS expects that the effects of the proposed project include: 1) Potential delay of juvenile chinook salmon during the spring migration period as a result of the tidal creeks draining at a slower rate than occurs naturally; and 2) increased stranding rates of juvenile salmonids beyond that which occurs naturally.

Juvenile chinook salmon that may be rearing and over-wintering in the vicinity of the action area could be delayed or prevented from migrating downstream by their inability to find the outfall structure. The extent of natural stranding is unknown, but likely to be occurring. The proposed outfall structure is adequately designed to pass fish and should allow for safe passage of juveniles. The proposed structure is designed to prevent water from rapidly draining the wetlands, which could potentially delay or prevent migration. However, it is possible that the steady out flow may actually decrease stranding of juveniles that would naturally strand when water levels drop rapidly. The proposed monitoring plan would provide information to address the potential stranding issue.

Construction of the proposed facility during the proposed dates (prior to first inundation in December) would not result in any impact to species considered in this Opinion, since no juvenile chinook salmon would be present.

B. Effects on Critical Habitat

NMFS designates critical habitat based on physical and biological features that are essential to the listed species. Essential features for designated critical habitat include substrate, water quality, water quantity, water temperature, food, riparian vegetation, access, water velocity, space and safe passage. For the proposed action, NMFS expects that the project will maintain, or slightly improve, conditions in the watershed under current baseline conditions over the long term. Reed's canary grass is a highly invasive wetland plant that chokes out native vegetation. This results in a monotypical wetland that does not supply the diversity of insects and cover that is beneficial to juvenile salmonids. The expected shift to a more diversified habitat as a result of the proposed action will increase the diversity of insects available as prey for juvenile salmon. The variety of cover habitat will also allow juveniles to select the preferred habitat to use under varying weather conditions and water levels.

C. Cumulative Effects

Cumulative effects are defined in 50 CFR 402.02 as "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." Other activities within the watershed have the potential to impact fish and habitat within the action area. Future Federal actions, including the ongoing operation of hydropower systems, hatcheries, fisheries, and land management activities are being (or have been) reviewed through separate section 7 consultation processes.

NMFS is not aware of any significant change in non-Federal activities that are reasonably certain to occur. NMFS assumes that future private and State actions will continue at similar intensities as in recent years.

VI. CONCLUSION

NMFS has determined, based on the available information, that the proposed action is expected to improve habitat conditions within the action area through the habitat enhancement activity of suppressing Reed's canary grass. This would allow for increased over-wintering survival of juvenile chinook salmon. The NMFS believes that there is the potential for migration delay or stranding to occur, but it is unknown if it would be higher than what occurs naturally. There is also the potential that the project may actually decrease stranding rates of juvenile salmon.

Consequently, NMFS believes that the proposed action is not likely to jeopardize the continued existence of Lower Columbia River chinook salmon or adversely modify critical habitat. In making this determination, NMFS used the best available scientific and commercial data to apply its jeopardy analysis, when analyzing the effects of the proposed action on the biological requirements of the species relative to the environmental baseline, together with cumulative effects.

VII. REINITIATION OF CONSULTATION

Consultation must be reinitiated if: The amount or extent of taking specified in the Incidental Take Statement is exceeded, or is expected to be exceeded; new information reveals effects of the action may affect listed species in a way not previously considered; the action is modified in a way that causes an effect on listed species that was not previously considered; or, a new species is listed or critical habitat is designated that may be affected by the action (50 CFR 402.16). To reinitiate consultation, the NRCS should contact the Habitat Conservation Division (Oregon State Office) of NMFS.

VIII. REFERENCES

Healey, M.C. 1991. Life history of chinook salmon (*Oncorhynchus tshawytscha*). Pages 311-393 *In:* Groot, C. and L. Margolis (eds.). 1991. Pacific salmon life histories. Vancouver, British Columbia: University of British Columbia Press.

Myers, J.M., R.G. Kope, G.J. Bryant, D. Teel, L.J. Lierheimer, T.C. Wainwright, W.S. Grant, F.W. Waknitz, K. Neely, S.T. Lindley, and R.S. Waples. 1998. Status review of chinook salmon from Washington, Idaho, Oregon, and California. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-35, 443 p.

ODFW and WDFW. 1998. Status Report Columbia River Fish Runs and Fisheries, 1938-1997. 299 pp.

IX. INCIDENTAL TAKE STATEMENT

Sections 4 (d) and 9 of the ESA prohibit any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct) of listed species without a specific permit or exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, and sheltering. Harass is defined as actions that create the likelihood of injuring listed species to such an extent as to significantly alter normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. Incidental take is take of listed species that results from, but is not the purpose of, the Federal agency or the applicant carrying out an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

An incidental take statement specifies the impact of any incidental taking of endangered or threatened species. It also provides reasonable and prudent measures that are necessary to minimize impacts and sets forth terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures.

A. Amount or Extent of the Take

The NMFS anticipates that the action covered by this Opinion has more than a negligible likelihood of resulting in incidental take of Lower Columbia River chinook salmon because of the potential to delay or strand juveniles within the lake. Effects of actions such as these are largely unquantifiable and are not expected to be measurable as long-term effects on population levels. Therefore, even though NMFS expects some low level incidental take to occur due to the actions covered by this Opinion, the best scientific and commercial data available are not sufficient to enable NMFS to estimate a specific amount of incidental take to the species itself. In instances such as these, the NMFS designates the expected level of take as "unquantifiable." Based on the information in the BA, NMFS anticipates that an unquantifiable amount of incidental take could occur as a result of the actions covered by this Opinion.

B. Reasonable and Prudent Measure

The NMFS believes that the following reasonable and prudent measure is necessary and appropriate to avoid or minimize take of the above species.

1. Measures shall be taken to monitor the extent of delay or stranding that is occurring in the action area to determine the amount and extent of incidental take and identify potential ways to decrease incidental take.

C. Terms and Conditions

To be exempt from the prohibitions of section 9 of the ESA, the NRCS must comply with the following terms and conditions, which implement the reasonable and prudent measure described above. These terms and conditions are non-discretionary.

1a. The NRCS shall monitor the bypass outfall structures to determine if juveniles are successfully passing through the bypass structure.
1b. The NRCS shall monitor the extent of juvenile stranding.
1c. The NRCS shall conduct an analysis of migration delay that may be occurring.
1d. The NRCS shall supply a monitoring report of these activities to the NMFS at the end of each migration period (no later than the end of August).

X. ESSENTIAL FISH HABITAT CONSULTATION

The Pacific Fisheries Management Council (the PFMC) is one of eight regional fishery management councils established under the Magnuson-Stevens Act. PFMC develops and carries out fisheries management plans for salmon, groundfish and coastal pelagic species off the coasts of Washington, Oregon and California, and recommends Pacific halibut harvest regulations to the International Pacific Halibut Commission.

As required by the Magnuson-Stevens Act, PFMC described and identified EFH in each of its fisheries management plans. EFH includes "those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity." The Columbia River estuary and the Pacific Ocean off the mouth of the Columbia River were designated as EFH for groundfish and coastal pelagic species,[1] and all streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California are proposed for designation as EFH for salmon.[2]

The Magnuson-Stevens Act also established an EFH consultation process. Federal agencies are required to consult with NMFS on all actions that may adversely affect EFH. The NMFS interprets the scope of these consultations to include actions by Federal agencies that occur outside designated EFH, such as upstream or upslope, but which nonetheless may have an adverse effect on habitat conditions necessary for the long-term survival of the species within EFH. The NMFS must provide conservation recommendations for any Federal or State activity that may adversely affect EFH. Within 30 days of receiving EFH conservation recommendations from the NMFS, Federal agencies must conclude EFH consultation by responding to NMFS with a written description of conservation measures the agency will use to avoid, mitigate or offset the impact of its action on EFH. If the Federal agency selects conservation measures which are inconsistent with the conservation recommendations of NMFS, the Federal agency must explain in writing its reasons for not following NMFS' recommendations.

The project area for the proposed water control structures occurs within the area proposed for designation as EFH for chinook salmon. Information submitted by the NRCS in its biological assessment is sufficient to conclude that the effects of this project on proposed EFH are likely to be within the range of effects considered in the Endangered Species Act portion of this consultation. Based on that analysis, the NMFS finds that the METRO Parks and Recreation Wetlands Restoration Project is unlikely to adversely affect EFH that has been proposed for chinook salmon. Because the project is not likely to adversely affect proposed EFH, the NMFS has no conservation recommendations to make at this time.

This concludes EFH consultation for the METRO Parks and Recreation Wetlands Restoration Project near Scappose, Oregon. The NRCS must reinitiate this EFH consultation if: 1) New information reveals effects of the agency action that may affect designated EFH in a manner or to an extent not considered in this consultation; 2) the agency action is subsequently modified in a manner that causes an effect to designated EFH not considered in this consultation; or 3) new EFH is designated that may be affected by the action.

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[1] Pacific Fishery Management Council, Final Environmental Assessment/ Regulatory Review for Amendment 11 to the Pacific Coast Groundfish Fishery Management Plan (October 1998), and The Coastal Pelagic Species Fishery Management Plan: Amendment 8 (December 1998). See, also, Casillas, *et al*., Essential Fish Habitat West Coast Groundfish Appendix, National Marine Fisheries Service, 778 p. (1988).

[2] Pacific Fishery Management Council, Amendment 14 to the Pacific Coast Salmon Plan. Appendix A: Description and Identification of Essential Fish Habitat, Adverse Impacts and Recommended Conservation Measures for Salmon (1999).